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SEQUENCE LISTING

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RECEIVED

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TECH CENTER 1600/2900

B. <120> DIAGNOSIS OF DISEASE STATE USING MRNA PROFILES IN
PERIPHERAL LEUKOCYTES

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<140> 09/660,568

<141> 2000-09-11

<150> 60/041,576

<151> 1997-03-24

<150> PCTUS97/22105

<151> 1997-12-05

<150> 60/032,619

<151> 1996-12-06

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<170> PatentIn Ver. 2.1

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<210> 10

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Primer

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Primer

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<210> 19
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<223> Description of Artificial Sequence: Synthetic
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<210> 21

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<223> Description of Artificial Sequence: Synthetic
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<400> 22

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<210> 23

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<210> 26
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<223> Description of Artificial Sequence: Synthetic
Primer

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<210> 27

<211> 21

<212> DNA

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<223> Description of Artificial Sequence: Synthetic
Primer

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<210> 28

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<212> DNA

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<223> Description of Artificial Sequence: Synthetic
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<210> 29

<211> 1614

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<223> Description of Artificial Sequence: Synthetic
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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
Primer

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<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
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 20 25 30

Leu Arg Ile Asp Leu Glu Arg Leu Gln Cys Leu Asn Glu Ser Arg Glu
 35 40 45

Gly Ser Gly Arg Gly Val Phe Lys Pro Trp Glu Glu Arg Thr Asp Arg
 50 55 60

Ser Lys Phe Ile Glu Ser Asp Ala Asp Glu Glu Leu Leu Phe Asn Ile
 65 70 75 80

Pro Phe Thr Gly Asn Val Lys Leu Lys Gly Ile Ile Ile Met Gly Glu
 85 90 95

Asp Asp Asp Ser His Pro Ser Glu Met Arg Leu Tyr Lys Asn Ile Pro
 100 105 110

Gln Met Ser Phe Asp Asp Thr Glu Arg Glu Pro Asp Gln Thr Phe Ser
 115 120 125

Leu Asn Arg Asp Leu Thr Gly Glu Leu Glu Tyr Ala Thr Lys Ile Ser
 130 135 140

Arg Phe Ser Asn Val Tyr His Leu Ser Ile His Ile Ser Lys Asn Phe
 145 150 155 160

Gly Ala Asp Thr Thr Lys Val Phe Tyr Ile Gly Leu Arg Gly Glu Trp
 165 170 175

Thr Glu Leu Arg Arg His Glu Val Thr Ile Cys Asn Tyr Glu Ala Ser
180 185 190

Ala Asn Pro Ala Asp His Arg Val His Gln Val Thr Pro Gln Thr His
195 200 205

Phe Ile Ser
210

<210> 32

<211> 157

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
Peptide

<400> 32

Phe Lys Pro Trp Glu Glu Arg Thr Asp Arg Ser Lys Phe Ala Glu Ser
1 5 10 15

Asp Ala Asp Glu Glu Leu Leu Phe Asn Ile Pro Phe Thr Cys Asn Val
20 25 30

Lys Leu Lys Gly Val Ile Ile Met Gly Glu Asp Asp Asp Ser His Pro
35 40 45

Ser Glu Met Arg Leu Tyr Lys Asn Ile Pro Gln Met Ser Phe Asp Asp
50 55 60

Thr Glu Arg Glu Pro Glu Gln Thr Phe Ser Leu Asn Arg Asp Ile Thr
65 70 75 80

Gly Glu Leu Glu Tyr Ala Thr Lys Ile Ser Arg Phe Ser Asn Val Tyr
85 90 95

His Leu Ser Ile His Ile Ser Lys Asn Phe Gly Ala Asp Thr Thr Lys
100 105 110

Ile Phe Tyr Ile Gly Leu Arg Gly Glu Trp Thr Glu Leu Arg Arg His
115 120 125

Glu Val Thr Ile Cys Asn Tyr Glu Ala Ser Ala Asn Pro Ala Asp His
130 135 140

Arg Val His Gln Val Thr Pro Gln Thr His Phe Ile Ser
145 150 155

<210> 33

<211> 207

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic
Peptide

<400> 33

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Val Pro Gly Asp Asp Val Tyr Arg Tyr Asp Met Val Ser Tyr Ile Asp
20 25 30

Met Glu Lys Val Thr Thr Leu Asn Glu Ser Val Asp Gly Ala Gly Lys
35 40 45

Lys Val Phe Lys Val Met Glu Lys Arg Asp Asp Arg Leu Glu Tyr Val
50 55 60

Glu Ser Asp Cys Asp His Glu Leu Leu Phe Asn Ile Pro Phe Thr Gly
65 70 75 80

His Val Arg Leu Thr Gly Leu Ser Ile Ile Gly Asp Glu Asp Gly Ser
85 90 95

His Pro Ala Lys Ile Arg Leu Phe Lys Asp Arg Glu Ala Met Ser Phe
100 105 110

Asp Asp Cys Ser Ile Glu Ala Asp Gln Glu Ile Asp Leu Lys Gln Asp
115 120 125

Pro Gln Gly Leu Val Asp Tyr Pro Leu Lys Ala Ser Lys Phe Gly Asn
130 135 140

Ile His Asn Leu Ser Ile Leu Val Asp Ala Asn Phe Gly Glu Asp Glu
145 150 155 160

Thr Lys Ile Tyr Tyr Ile Gly Leu Arg Gly Glu Phe Gln His Glu Phe
165 170 175

Arg Gln Arg Ile Ala Ile Ala Thr Tyr Glu Ser Arg Ala Gln Leu Lys

Asp His Lys Asn Glu Ile Pro Asp Ala Val Ala Lys Gly Leu Phe
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<210> 34

<211> 3205

<212> DNA

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<223> Description of Artificial Sequence: Synthetic
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<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic Peptide

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Arg	Arg	Asp	Glu	Val	Ala	Glu	Ala	Gln	Arg	Ala	Glu	Phe	Ser	Pro	Ala
			65			70			75					80	

Gln	Phe	Ser	Gly	Pro	Lys	Lys	Ile	Asn	Leu	Asn	His	Leu	Leu	Asn	Phe	85	90	95	
Thr	Phe	Glu	Pro	Arg	Gly	Gln	Thr	Gly	His	Phe	Glu	Gly	Ser	Gly	His	100	105	110	
Gly	Ser	Trp	Gly	Lys	Arg	Asn	Lys	Trp	Gly	His	Lys	Pro	Phe	Asn	Lys	115	120	125	
Glu	Leu	Phe	Leu	Gln	Ala	Asn	Cys	Gln	Phe	Val	Val	Ser	Glu	Asp	Gln	130	135	140	
Asp	Tyr	Thr	Ala	His	Phe	Ala	Asp	Pro	Asp	Thr	Leu	Val	Asn	Trp	Asp	145	150	155	160
Phe	Val	Glu	Gln	Val	Arg	Ile	Cys	Ser	His	Glu	Val	Pro	Ser	Cys	Pro	165	170	175	
Ile	Cys	Leu	Tyr	Pro	Pro	Thr	Ala	Ala	Lys	Ile	Thr	Arg	Cys	Gly	His	180	185	190	
Ile	Phe	Cys	Trp	Ala	Cys	Ile	Leu	His	Tyr	Leu	Ser	Leu	Ser	Glu	Lys	195	200	205	
Thr	Trp	Ser	Lys	Cys	Pro	Ile	Cys	Tyr	Ser	Ser	Val	His	Lys	Lys	Asp	210	215	220	
Leu	Lys	Ser	Val	Val	Ala	Thr	Glu	Ser	His	Gln	Tyr	Val	Val	Gly	Asp	225	230	235	240
Thr	Ile	Thr	Met	Gln	Leu	Met	Lys	Arg	Glu	Lys	Gly	Val	Leu	Val	Ala	245	250	255	
Leu	Pro	Lys	Ser	Lys	Trp	Met	Asn	Val	Asp	His	Pro	Ile	His	Leu	Gly	260	265	270	
Asp	Glu	Gln	His	Ser	Gln	Tyr	Ser	Lys	Leu	Leu	Leu	Ala	Ser	Lys	Glu	275	280	285	
Gln	Val	Leu	His	Arg	Val	Val	Leu	Glu	Glu	Lys	Val	Ala	Leu	Glu	Gln	290	295	300	
Gln	Leu	Ala	Glu	Glu	Lys	His	Thr	Pro	Glu	Ser	Cys	Phe	Ile	Glu	Ala	305	310	315	320
Ala	Ile	Gln	Glu	Leu	Lys	Thr	Arg	Glu	Glu	Ala	Leu	Ser	Gly	Leu	Ala	325	330	335	

Gly Ser Arg Arg Glu Val Thr Gly Val Val Ala Ala Leu Glu Gln Leu
340 345 350

Val Leu Met Ala Pro Leu Ala Lys Glu Ser Val Phe Gln Pro Arg Lys
355 360 365

Gly Val Leu Glu Tyr Leu Ser Ala Phe Asp Glu Glu Thr Thr Glu Val
370 375 380

Cys Ser Leu Asp Thr Pro Ser Arg Pro Leu Ala Leu Pro Leu Val Glu
385 390 395 400

Glu Glu Glu Ala Val Ser Glu Pro Glu Pro Glu Gly Leu Pro Glu Ala
405 410 415

Cys Asp Asp Leu Glu Leu Ala Asp Asp Asn Leu Lys Glu Gly Thr Ile
420 425 430

Cys Thr Glu Ser Ser Gln Gln Glu Pro Ile Thr Lys Ser Gly Phe Thr
435 440 445

Arg Leu Ser Ser Ser Pro Cys Tyr Tyr Phe Tyr Gln Ala Glu Asp Gly
450 455 460

Gln His Met Phe Leu His Pro Val Asn Val Arg Cys Leu Val Arg Glu
465 470 475 480

Tyr Gly Ser Leu Glu Arg Ser Pro Glu Lys Ile Ser Ala Thr Val Val
485 490 495

Glu Ile Ala Gly Tyr Ser Met Ser Glu Asp Val Arg Gln Arg His Arg
500 505 510

Tyr Leu Ser His Leu Pro Leu Thr Cys Glu Phe Ser Ile Cys Glu Leu
515 520 525

Ala Leu Gln Pro Pro Val Val Ser Lys Glu Thr Leu Glu Met Phe Ser
530 535 540

Asp Asp Ile Glu Lys Arg Lys Arg Gln Arg Gln Lys Lys Ala Arg Glu
545 550 555 560

Glu Arg Arg Arg Glu Arg Arg Ile Glu Ile Glu Glu Asn Lys Lys Gln
565 570 575

Gly Lys Tyr Pro Glu Val His Ile Pro Leu Glu Asn Leu Gln Gln Phe
580 585 590

Pro Ala Phe Asn Ser Tyr Thr Cys Ser Ser Asp Ser Ala Leu Gly Pro
595 600 605

Thr Ser Thr Glu Gly His Gly Ala Leu Ser Ile Ser Pro Leu Ser Arg
610 615 620

Ser Pro Gly Ser His Ala Asp Phe Leu Leu Thr Pro Leu Ser Pro Thr
625 630 635 640

Ala Ser Gln Gly Ser Pro Ser Phe Cys Val Gly Ser Leu Glu Glu Asp
645 650 655

Ser Pro Phe Pro Ser Phe Ala Gln Met Leu Arg Val Gly Lys Ala Lys
660 665 670

Ala Asp Val Trp Pro Lys Thr Ala Pro Lys Lys Asp Glu Asn Ser Leu
675 680 685

Val Pro Pro Ala Pro Val Asp Ser Asp Gly Glu Ser Asp Asn Ser Asp
690 695 700

Arg Val Pro Val Pro Ser Phe Gln Asn Ser Phe Ser Gln Ala Ile Glu
705 710 715 720

Ala Ala Phe Met Lys Leu Asp Thr Pro Ala Thr Ser Asp Pro Leu Ser
725 730 735

Glu Glu Lys Gly Gly Lys Lys Arg Lys Lys Gln Lys Gln Lys Leu Leu
740 745 750

Phe Ser Thr Ser Val Val His Thr Lys
755 760

<210> 36

<211> 42

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Peptide

<400> 36

Cys Pro Ile Cys Leu Tyr Pro Pro Thr Ala Ala Lys Ile Thr Arg Cys
1 5 10 15

Gly His Ile Phe Cys Trp Ala Cys Ile Leu His Tyr Leu Ser Leu Ser
20 25 30

Glu Lys Thr Trp Ser Lys Cys Pro Ile Cys
35 40

<210> 37
<211> 41
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Peptide

<400> 37
Cys Pro Ile Cys Leu Glu Leu Ile Lys Glu Pro Val Ser Thr Lys Cys
1 5 10 15

Asp His Ile Phe Cys Lys Phe Cys Met Leu Lys Leu Leu Asn Gln Lys
20 25 30

Lys Gly Pro Ser Gln Cys Pro Leu Cys
35 40

<210> 38
<211> 44
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Peptide

<400> 38
Cys Pro Ile Cys Leu Glu Leu Leu Lys Glu Pro Val Ser Ala Asp Cys
1 5 10 15

Asn His Ser Phe Cys Arg Ala Cys Ile Thr Leu Asn Tyr Glu Ser Asn
20 25 30

Arg Asn Thr Asp Gly Lys Gly Asn Cys Pro Val Cys
35 40

<210> 39

<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Peptide

<400> 39
Cys Ala Phe Cys His Ser Val Leu His Asn Pro His Gln Thr Gly Cys
1 5 10 15
Gly His Arg Phe Cys Gln Gln Cys Ile Arg Ser Leu Arg Glu Leu Asn
20 25 30
Ser Val Pro Ile Cys Pro Val Asp
35 40

<210> 40
<211> 45
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Peptide

<400> 40
Cys Pro Ile Cys Met Glu Ser Phe Thr Glu Glu Gln Leu Arg Pro Lys
1 5 10 15
Leu Leu His Cys Gly His Thr Ile Cys Arg Gln Cys Leu Glu Lys Leu
20 25 30
Leu Ala Ser Ser Ile Asn Gly Val Arg Cys Pro Phe Cys
35 40 45

<210> 41
<211> 44
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Peptide

<400> 41

Cys Pro Arg Cys Lys Thr Thr Lys Tyr Arg Asn Pro Ser Leu Lys Leu
1 5 10 15

Met Val Asn Val Cys Gly His Thr Leu Cys Glu Ser Cys Val Asp Leu
20 25 30

Leu Phe Val Arg Gly Ala Gly Asn Cys Pro Glu Cys
35 40

<210> 42

<211> 41

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Peptide

<400> 42

Cys Pro Val Cys Leu Gln Tyr Phe Ala Glu Pro Met Met Leu Asp Cys
1 5 10 15

Gly His Asn Ile Cys Cys Ala Cys Leu Ala Arg Cys Trp Gly Thr Ala
20 25 30

Glu Thr Asn Val Ser Cys Pro Gln Cys
35 40

<210> 43

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Peptide

<400> 43

Cys Val Leu Cys Gly Gly Tyr Phe Ile Asp Ala Thr Thr Ile Ile Glu
1 5 10 15

Cys Leu His Phe Ser Cys Lys Thr Cys Ile Val Arg Tyr Leu Glu Thr
20 25 30

Ser Lys Tyr Cys Pro Ile Cys

<210> 44
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Peptide

<400> 44
Cys Ala Ile Cys Leu Asp Glu Tyr Glu Asp Gly Asp Lys Leu Arg Ile
1 5 10 15
Leu Pro Cys Ser His Ala Tyr His Cys Lys Cys Val Asp Pro Trp Leu
20 25 30
Thr Lys Lys Thr Cys Pro Val Cys
35 40

<210> 45
<211> 41
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Peptide

<400> 45
Cys Thr Ile Cys Tyr Glu Asn Pro Ile Asp Ser Val Leu Tyr Met Cys
1 5 10 15
Gly His Met Cys Met Cys Tyr Asp Cys Ala Ile Glu Gln Trp Arg Gly
20 25 30
Val Gly Gly Gly Gln Cys Pro Leu Cys
35 40

<210> 46
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 46

aacagctatg accctgagga

20

<210> 47

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 47

aagccccaag cccagagaca agat

24

<210> 48

<211> 253

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 48

ggcaggggct tgtgactcta agatggcttc attcacatgc ctagggcctc agtaggatga 60
ctggcatggc cctggaaaac tgcgaagtct tctctctgtg caaactttca cctggacttt 120
ttatatgatt ctggaagtat tccaagaagg caaaagtaaa aactgcaaag cgtcttaaaa 180
tagaagttca gaagccacat tatatcactt ctgttgcatt ctatcaaagc aagtcacaag 240
cccctgccaa tca 253

<210> 49

<211> 183

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 49

cacacactcc cccattctga gcccgaagag gctcatccct aaggatgtcc agagatccaa 60
gtgcagaagg agaatgtggt gaggtatatt attccccag tgcttccct gctgggctat 120
ggatgaacag tggctgactt catctaggaa agagctatgg cttctgtctc ctggagctca 180
cca 183

<210> 50
<211> 21
<212> DNA
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<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 50
tgcaaacttt cacctggact t 21

<210> 51
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
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Primer

<400> 51
cttgtgactt gctttgatag aatg 24

<210> 52
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Primer

<400> 52
tgtccagaga tccaagtgcga gaagg 25

<210> 53
<211> 25
<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 53

gagctccagg agacagaagc catag

25

<210> 54

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 54

acattgaagc actccgagc

20

<210> 55

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 55

agagtggcag caaccaagct

20

Bi
conc'd